

September 4, 2019

Arcelor Mittal USA, Inc.  
250 W US Highway 12  
Burns Harbor, IN 46304-9745

Work Order No.: 19I0104

Re: Ammonia-Storm Ditch

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 8 sample(s) on 9/4/2019 10:10:00AM for the analyses presented in the following report as Work Order 19I0104.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Ron Misiunas, Division Manager, at [ron.misiunas@microbac.com](mailto:ron.misiunas@microbac.com).

Sincerely,  
Microbac Laboratories, Inc.



Carey Gadzala  
Project Manager



**WORK ORDER SAMPLE SUMMARY**

**Date:** *Wednesday, September 4, 2019*

**Client:** Arcelor Mittal USA, Inc.  
**Project:** Ammonia-Storm Ditch  
**Lab Order:** 19I0104

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19I0104-01	Plate Mill Storm Ditch		09/04/2019 00:00	9/4/2019 10:10:00AM
19I0104-02	Main Storm Ditch		09/04/2019 00:00	9/4/2019 10:10:00AM
19I0104-03	Cannon Storm Ditch		09/04/2019 00:00	9/4/2019 10:10:00AM
19I0104-04	NW Storm Ditch		09/04/2019 00:00	9/4/2019 10:10:00AM
19I0104-05	SWTP Clarifiers		09/04/2019 00:00	9/4/2019 10:10:00AM
19I0104-06	001		09/04/2019 00:00	9/4/2019 10:10:00AM
19I0104-07	031		09/04/2019 00:00	9/4/2019 10:10:00AM
19I0104-08	999		09/04/2019 00:00	9/4/2019 10:10:00AM

## Analytical Results

Date: *Wednesday, September 4, 2019*

**Client:** Arcelor Mittal USA, Inc.  
**Client Project:** Ammonia-Storm Ditch  
**Client Sample ID:** Plate Mill Storm Ditch  
**Sample Description:**  
**Matrix:** Aqueous

**Work Order/ID:** 19I0104-01  
**Sampled:** 09/04/2019 0:00  
**Received:** 09/04/2019 10:10

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: EPA 350.1 Rev 2.0		Analyst: ABG			
<b>Nitrogen, Ammonia as N</b>			Prep Method: EPA 350.1 Rev 2.0		Prep Date/Time: 09/04/2019 13:03			
Nitrogen, Ammonia (As N)	di	A	ND	0.10		mg/L	1	09/04/2019 14:50

## Analytical Results

Date: *Wednesday, September 4, 2019*

<b>Client:</b>	Arcelor Mittal USA, Inc.	<b>Work Order/ID:</b>	19I0104-02
<b>Client Project:</b>	Ammonia-Storm Ditch	<b>Sampled:</b>	09/04/2019 0:00
<b>Client Sample ID:</b>	Main Storm Ditch	<b>Received:</b>	09/04/2019 10:10
<b>Sample Description:</b>			
<b>Matrix:</b>	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: EPA 350.1 Rev 2.0		Analyst: ABG			
<b>Nitrogen, Ammonia as N</b>			Prep Method: EPA 350.1 Rev 2.0		Prep Date/Time: 09/04/2019 13:03			
Nitrogen, Ammonia (As N)	di	A	ND	0.10		mg/L	1	09/04/2019 14:53



## Analytical Results

Date: Wednesday, September 4, 2019

**Client:** Arcelor Mittal USA, Inc.  
**Client Project:** Ammonia-Storm Ditch  
**Client Sample ID:** Cannon Storm Ditch  
**Sample Description:**  
**Matrix:** Aqueous

**Work Order/ID:** 19I0104-03  
**Sampled:** 09/04/2019 0:00  
**Received:** 09/04/2019 10:10

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: EPA 350.1 Rev 2.0		Analyst: ABG			
<b>Nitrogen, Ammonia as N</b>			Prep Method: EPA 350.1 Rev 2.0		Prep Date/Time: 09/04/2019 13:03			
Nitrogen, Ammonia (As N)	di	A	ND	0.10		mg/L	1	09/04/2019 15:00

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## Analytical Results

Date: *Wednesday, September 4, 2019*

<b>Client:</b>	Arcelor Mittal USA, Inc.	<b>Work Order/ID:</b>	19I0104-04
<b>Client Project:</b>	Ammonia-Storm Ditch	<b>Sampled:</b>	09/04/2019 0:00
<b>Client Sample ID:</b>	NW Storm Ditch	<b>Received:</b>	09/04/2019 10:10
<b>Sample Description:</b>			
<b>Matrix:</b>	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
				Method: EPA 350.1 Rev 2.0		Analyst: ABG		
<b>Nitrogen, Ammonia as N</b>				Prep Method: EPA 350.1 Rev 2.0		Prep Date/Time: 09/04/2019 13:03		
Nitrogen, Ammonia (As N)	di	A	ND	0.10		mg/L	1	09/04/2019 15:02

## Analytical Results

Date: *Wednesday, September 4, 2019*

<b>Client:</b>	Arcelor Mittal USA, Inc.	<b>Work Order/ID:</b>	19I0104-05
<b>Client Project:</b>	Ammonia-Storm Ditch	<b>Sampled:</b>	09/04/2019 0:00
<b>Client Sample ID:</b>	SWTP Clarifiers	<b>Received:</b>	09/04/2019 10:10
<b>Sample Description:</b>			
<b>Matrix:</b>	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: EPA 350.1 Rev 2.0		Analyst: ABG			
<b>Nitrogen, Ammonia as N</b>			Prep Method: EPA 350.1 Rev 2.0		Prep Date/Time: 09/04/2019 13:03			
Nitrogen, Ammonia (As N)	di	A	0.36	0.10		mg/L	1	09/04/2019 15:05



## Analytical Results

Date: *Wednesday, September 4, 2019*

**Client:** Arcelor Mittal USA, Inc.  
**Client Project:** Ammonia-Storm Ditch  
**Client Sample ID:** 001  
**Sample Description:**  
**Matrix:** Aqueous

**Work Order/ID:** 19I0104-06  
**Sampled:** 09/04/2019 0:00  
**Received:** 09/04/2019 10:10

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: EPA 350.1 Rev 2.0		Analyst: ABG			
<b>Nitrogen, Ammonia as N</b>			Prep Method: EPA 350.1 Rev 2.0		Prep Date/Time: 09/04/2019 13:03			
Nitrogen, Ammonia (As N)	di	A	0.19	0.10		mg/L	1	09/04/2019 15:12

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## Analytical Results

Date: *Wednesday, September 4, 2019*

**Client:** Arcelor Mittal USA, Inc.  
**Client Project:** Ammonia-Storm Ditch  
**Client Sample ID:** 031  
**Sample Description:**  
**Matrix:** Aqueous

**Work Order/ID:** 19I0104-07  
**Sampled:** 09/04/2019 0:00  
**Received:** 09/04/2019 10:10

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: EPA 350.1 Rev 2.0		Analyst: ABG			
<b>Nitrogen, Ammonia as N</b>			Prep Method: EPA 350.1 Rev 2.0		Prep Date/Time: 09/04/2019 13:03			
Nitrogen, Ammonia (As N)	di	A	0.11	0.10		mg/L	1	09/04/2019 15:14

## Analytical Results

Date: *Wednesday, September 4, 2019*

<b>Client:</b>	Arcelor Mittal USA, Inc.	<b>Work Order/ID:</b>	19I0104-08
<b>Client Project:</b>	Ammonia-Storm Ditch	<b>Sampled:</b>	09/04/2019 0:00
<b>Client Sample ID:</b>	999	<b>Received:</b>	09/04/2019 10:10
<b>Sample Description:</b>			
<b>Matrix:</b>	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: EPA 350.1 Rev 2.0		Analyst: ABG			
<b>Nitrogen, Ammonia as N</b>			Prep Method: EPA 350.1 Rev 2.0		Prep Date/Time: 09/04/2019 13:03			
Nitrogen, Ammonia (As N)	di	A	ND	0.10		mg/L	1	09/04/2019 15:17

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**ANALYTE TYPES: (AT)**

A, B = Target Analyte

I = Internal Standard

M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)



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**QC SAMPLE IDENTIFICATIONS**

BLK = Method Blank

DUP = Method Duplicate

BS = Method Blank Spike

MS = Matrix Spike

ICB = Initial Calibration Blank

CCB = Continuing Calibration Blank

CRL = Client Required Reporting Limit

PDS = Post Digestion Spike

QCS = Quality Control Standard

ICSA = Interference Check Standard "A"

ICSAB = Interference Check Standard "AB"

BSD = Method Blank Spike Duplicate

MSD = Matrix Spike Duplicate

ICV = Initial Calibration Verification

CCV = Continuing Calibration Verification

OPR = Ongoing Precision and Recovery Standard

SD = Serial Dilution

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**CERTIFICATIONS (Certs)**

*Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.*

<sup>d</sup> Illinois EPA drinking water, wastewater and solid waste analysis (#200064)

<sup>i</sup> Kansas Dept Health & Env. NELAP (#E-10397)

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**FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)**

**RL:** Reporting Limit

**RPD:** Relative Percent Difference

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## Cooler Receipt Log

Cooler ID: Default Cooler



### Comments

No time. Samples preserved at lab

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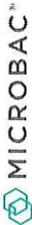
### Cooler Inspection Checklist

Ice Present or not required?	Yes
Shipping containers sealed or not required?	Yes
Custody seals intact or not required?	Yes
Chain of Custody (COC) Present?	Yes
COC includes customer information?	Yes
Relinquished and received signature on COC?	Yes
Sample collector identified on COC?	Yes
Sample type identified on COC?	Yes
Correct type of Containers Received	Yes
Correct number of containers listed on COC?	Yes
Containers Intact?	Yes
COC includes requested analyses?	Yes
Enough sample volume for indicated tests received?	Yes
Sample labels match COC (Name, Date & Time?)	Yes
Samples arrived within hold time?	Yes
Correct preservatives on COC or not required?	Yes
Chemical preservations checked or not required?	Yes
Preservation checks meet method requirements?	Yes
VOA vials have zero headspace, or not recd.?	Yes

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CHAIN OF CUSTODY RECORD

**RUSH!**

Number **152285**  
Instructions on back

Lab Report Address

Invoice Address

Turnaround Time

TO BE COMPLETED BY MICROBAC

6.0  
-0.3  
5.9

Client Name: **Arcelor Mittal**

Client Name:

Routine (5 to 7 business days)  
 RUSH\* (notify lab)

Temperature Upon Receipt (°C)

Address:

Address:

Holding Time

Level 1  Level 2  Level 3  Level 4  EDD

City, State, Zip:

City, State, Zip:

(needed by)

Samples Received on Ice?  Yes  No  N/A

Contact:

Contact:

Report Type

Custody Seals Intact?  Yes  No  N/A

Telephone No.:

Telephone No.:

Results Only  Level 1  Level 2  Level 3  Level 4  EDD

Send Invoice via:  Mail  Fax  e-mail (address)

Send Report via:  Mail  Fax  e-mail (address)

Send Invoice via:  Mail  Fax  e-mail (address)

Project:

Location:

Compliance Monitoring?  Yes  No

Agency/Program

Sampled by (PRINT): **Wam Howard**

Sampler Signature:

Sampler Phone No.:

\* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)  
\*\* Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

Lab ID	Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	Sample Disposition	Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time	Additional Notes
1910104	Storm Ditch Plate	9/4/19		1	S			As per request	<i>[Signature]</i>	9/4/19 0830	<i>[Signature]</i>	9/4/19 0830	1910104
	Storm Ditch Main			1									-01
	Storm Ditch Cannon			1									-02
	Storm Ditch NW			1									-03
	SWIP Clarifiers			1									-04
	001 Flume			1									-05
	031			1									-06
	999			1									-07
				1									-08